

**METHOD AND APPARATUS FOR ASSIGNING AND ALLOCATING
NETWORK RESOURCES TO LAYER 1 VIRTUAL PRIVATE NETWORKS**

ABSTRACT

Network resources are assigned as dedicated, shared, or public network resources. The resources are then allocated to L1-VPN subscribers on demand. Splitting assignment of the resources from allocation of the resources enables resources to be assigned to more than one subscriber on the network. Temporary physical dedication of the resources to one of the subscribers may be accomplished by allocating the assigned resources on demand, so that particular subscribers are provided with dedicated resources on an as-needed basis. Dedication of the network resources allows the network resources to be configured, managed, and controlled by the customers. The network resources may be optical resources and the links may be time slots on particular fibers. Optionally, by enabling prioritization to cause displacement of link allocations, additional flexibility may be obtained in allocating links to L1-VPNs such as by allowing the use of private and shared resources by other subscribers.